## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 25 November 2004 (25.11.2004)

**PCT** 

## (10) International Publication Number WO 2004/102878 A1

(51) International Patent Classification7:

H04L 12/18

(21) International Application Number:

PCT/GB2004/001876

(22) International Filing Date: 30 April 2004 (30.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

GB 0311277.8 16 May 2003 (16.05.2003) 0326802.6 18 November 2003 (18.11.2003) GB

- all designated States except (71) Applicant US): **SIEMENS AKTIENGESELLSCHAFT** [DE/DE]; Wittlesbacherplatz 2, 80333 München (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PROCTOR, Toby, Kier [GB/GB]; 43 Tasman Court, Southampton SO14 3TP (GB). MEMAR, Mohammad, Ali [AT/AT]; Gallmeyergasse 18/4/42, A-1190 Wien (AT). ULRICH, Thomas [DE/DE]; Rudolf-Bart-Siedlung 11, 67098 Bad Durkheim (DE). VESELY, Alexander [AT/AT]; Nattergasse 1-3, A-1170 Wien (AT).
- (74) Agent: PAYNE, Janice Julia; Siemens Aktiengesellschaft, Postfach 22 16 34, 80506 München (DE).

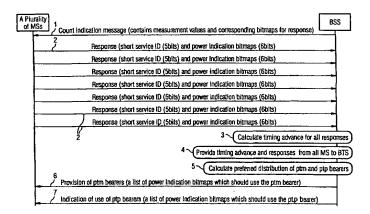
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: METHOD OF OPERATING A MBMS (MULTIMEDIA BROADCAST MULTICAST SERVICE) FOR A MOBILE STATION ACCORDING TO THE POSITION OR SIGNAL QUALITY



(57) Abstract: A method of operating a MBMS (Multimeda Broadcast / Multicast service) comprises causing a network controller to broadcast (1) to all mobile stations in a cell an offer of service. The network controller requests from each mobile station an indication of interest in the offered service and receives (2) data relating to each interested mobile station enabling the position or received signal quality of each mobile station within the cell to be determined. The network controller analyses the arrangement of interested mobile stations in one or more predefined areas and requires (7) each interested mobile station which is out of range of a subsequent broadcast transmission use an alternative mechanism to receive the service. (i.e. to use a point-to-multipoint connection if it out of range, while using a point-to-multipoint connection if it is in the range).





For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.